

"ACTIVE" SITE FORM

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3	COUNTY	-	S	T	.	C	L	A	1	R			
4	CITY	-	P	O	R	T		H	U	R	O		
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6	TWP	-	T	O	G	N							
7	RNG	-	R	1	7	E							
8	SEC	-	1	7									
* 9	WPACT	-	T										
10	WPSUBD	-	0	1	1	2	6	1	8	8			
11	WPAPPD	-			1			1					
12	WPTL	-	M	A	R	T	I	L					
13	PRESCORE	-	0	0	.	0	0						
14	PROSCORE	-	0	7	.	4	1						
*15	SIACT	-	E										
16	INSPECT	-			1			1					
17	SISUBD	-			1			1					
18	SIAPPD	-			1			1					
19	SIREPTL	-											
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22	SAM	-											
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32	SS	-											
33	WASTE	-											
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*36	AAR	-	E										
*37	GTACTION	-	E										
*38	DRILL	-	E										
39	DDATE	-			1			1					
40	WELL	-											
*41	GEOPHYS	-	F										
42	GDATE	-			1			1					
43	GTTL	-											
44	GPHTL	-											
45	GTMA	-											
46	GTTMB	-											
*47	HRSACT	-	E										
48	QCDATE	-			1			1					
49	HRSUBD	-			1			1					
50	HRSAPPD	-			1			1					
51	SCORE	-			.								
52	HRSTL	-											
*53	REACT	-	F										
54	RDATE	-			1			1					
55	RSCORE	-			.								
*56	FSI	-	F										
*57	ESI	-	F										
*58	SSERV	-	F										
*59	PA	-	F										



940451

DISK #6

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

April 22, 1980

TO: Kathy Morris, Water Quality District #1

FROM: Jennifer Daniels, Groundwater Compliance & Special Section

RE: Grand Trunk Western Railroad, Port Huron Diesel Fuel Section 17, T6N, R17E, Port Huron Township, St. Clair County

RECEIVED
MAY 1 1980
NOV 24 1980
517-334-6741
Helen Pharis
313-344-9440
Northville

We apologize for the long delay in reviewing this hydrogeological study. With the recent expansion of this unit and completion of Phase I of the Groundwater Assessment Program, we hope to avoid such delays in the future.

Due to several complaints of fuel losses and condition of the yard, Grand Trunk Western Railroad was requested to conduct a hydrogeological investigation. They retained Wade Trim & Associates, Inc. to perform the investigation and submitted the results of their Phase II hydrogeological investigation in July of 1979. (To my knowledge, Phase I was never submitted to the DNR). Phase II included the installation of 13 on-site borings to determine the direction of groundwater flow and hydrogeologic conditions of the site. Twelve of the thirteen borings were equipped with home-made Piezometers.

As we did not have the opportunity to review Phase I, I did a quick research on the hydrogeology of the area. Well logs as well as 13 on-site soil borings indicate the presence of a thin surficial layer of sand (0-10 feet thick) overlying a much thicker sequence of lake clays. The clay layer is 80 to 100 feet thick and appears to be laterally continuous across the site and the adjoining areas. Water supplies for the private wells in the area for which we have well logs are derived from relatively thin (10 to 30 feet thick) layers of sand and gravel which underlay the massive layer of clay. The majority of the people to the east and southeast of the site appear to be on municipal water supply.

I would like to make the following comments on Wade, Trim & Associates hydrogeological study.

1. The report indicates a perched surface aquifer in the surficial sand layer. The direction of groundwater flow is generally in an easterly direction, however, variations have shown a northwest and northeast component of flow.
2. I am uncertain as to why Wade Trim and Associates selected the locations they did for the piezometer/monitoring wells. Justification for their placement may have been given in Phase I which was not reviewed by this unit. Since the wells are located on the exterior of the property, it is possible that

the diesel fuel could leave the site, undetected, by traveling along the sewer lines. In addition, if a loss occurred and moved in an easterly direction, over 600' of aquifer would be contaminated before the diesel fuel reached monitoring well #3. Therefore, it may be beneficial to have some wells installed closer to areas of possible fuel losses and such that any contamination will be detected before it has a chance to enter or flow along the sewer system at the facility. This would greatly increase the detection before it moves off-site. Early detection of contamination makes clean-up operations easier and can be more cost effective to the company.

3. On page 4 of the report, it is stated that groundwater contamination has occurred from other activities on-site including a former dumping ground. The kind, level and extent of contamination should be looked into, especially due to a possible groundwater discharge into nearby ditches as indicated on page 5 of the report.
4. The Wade Trim and Associates Phase II study does not show any significant contamination on-site. As lab samples have only been run once, you may want to request additional sampling. Especially in respect to well number 1 which indicated 2 ppm oil and grease..
5. Routine inspection of the wells installed should be completed by the company. If you feel that there is chance that some contamination has occurred and moved off-site, you may want to request that some monitoring wells be installed down gradient. Even though the data does not indicate any significant groundwater contamination so far, it should be considered that there could be some on-site contamination that has not reached any of the monitoring wells.

I hope this has addressed your concerns about this facility. If I may be of any further assistance, please feel free to contact me at 517/373-2794.

ma

cc: R. Kimmel
Files

REF 15
A+B WASTE DISPOSAL
ME0050599075DATE 5/10/85TDD # R05-8303-03CTIME 11:30 AMPage 1 of SITE A + B WASTE DISPOSALCONTACT LEONARD GOSS PHONE (313) 987-6000SUPERINTENDENTPORT HURON CITY WATER DEPT.SUBJECT: PORT HURON MUNICIPAL WATER SYSTEM - BOUNDRIES

MR. GOSS STATED THE CITY OF PORT HURON IS THE MAIN SERVICE AREA. THERE ARE SOME RESIDENCES JUST OUTSIDE THE ACTUAL CITY LIMITS THAT ARE ON THE MUNICIPAL SYSTEM BUT THIS SERVICE TENDS TO BE SPOTTY. THE CITY DOES RUN A 20 INCH MAIN ALONG GRISWOLD ROAD OUT TO THE CITY OF SPARLINGVILLE, (RANGE RD.). THERE ARE NO PLANS AT THIS TIME TO EXPAND THE PRESENT SYSTEM. ALSO, ANY SUCH EXPANSION WOULD BE COSTLY.

Scott Green
Date: 5/10/85

Elaine Port Huron Township

Bill Thompson
⇒

* Port Huron, MI.

Draffen Plain

Johnson + Anderson
313-334-9901

11/19/87

Mr. Braimer - watermain dist
will send water main
information for Southern 1/2 of
Port Huron.

Heald Dep.

Sparlingville

* West ~~East~~ boundary: Range Rd
N - Grisswell
E

Paul Heron Super

313-987-6000

John Mercurio - meter crew

* 656

* Township
987-6600
Elaine

boundary for mun. well system? = 35,000 City
3 township
60000

people on private wells?

Fort Alaska
385-4489
Dwaine
Hoskey

Drainage ditch?

Kimball
987-9797
Mary

Kimball trap →

Watkins trap

Population Potentially Affected by Grand Trunk RR Diesel spill

$$\begin{array}{rcl} 80\% \times 1254 / \text{mi}^2 & = & 1003.2 \\ 20\% \times 189 / \text{mi}^2 & = & 37.8 \\ \hline & & 1041 \text{ tot} / \text{mi}^2 \end{array}$$

3 mi. Radius.

$$1041 \times 3.14 = 3268 \text{ people}$$

4 mile radius:

$$\begin{array}{rcl} 75\% \times 1254 / \text{mi}^2 & = & 940.5 \\ 20\% \times 189 / \text{mi}^2 & = & 37.8 \\ 5\% \times 106 / \text{mi}^2 & = & 5.3 \\ \hline & & 983.6 \text{ tot} / \text{mi}^2 \end{array}$$

$$983.6 \times 52.3 = 49376 \text{ people}$$

1 mile radius.

$$\begin{array}{rcl} 90\% \times 1254 / \text{mi}^2 & = & 1128.6 \\ 10\% \times 189 / \text{mi}^2 & = & 18.9 \\ \hline & & 1147.5 \end{array}$$

$$1147.5 \times 3.14 = 3603 \text{ people}$$

Site Name Grand Trunk Railroad

County St. Clair

CALL LOG

- 1) Verify site location and size.
- 2) Verify # and size of each containment structure.
- 3) Is there existing exposure of people documented?
- 4) Is the site fenced? Is it secure?
- 5) If sampling was done, how were samples collected? i.e. random, selective, surface grab, composite etc.
- 6) Has the fire marshall considered the site a fire hazard?
- 7) What type of companies used the site? (Origin of chemicals)

DATE

AGENCY

PHONE NUMBER

PERSON CONTACTED

7/14/86 site is not on Cerclis, and is not a RCRA facility

Prepared by: Barry C.

Site Name Grand Trunk RR
County St. Clair Co

CALL LOG

- 1) Verify Site Location and Size.
- 2) Verify # and size of each containment structure.
- 3) Is there existing exposure of people documented?
- 4) Is the site fenced? Is it secure?
- 5) If sampling was done, how were samples collected? i.e. random selective, surface grab, composite etc..
- 6) Has the fire marshall considered the site a fire hazard?
- 7) What type of companies used the site? (Origin of chemicals)

<u>DATE</u>	<u>AGENCY</u>	<u>PHONE NUMBER</u>	<u>PERSON CONTACTED</u>
9-8-86	City of Port Huron WW treatment plant	(313) 987-6000 or 6258	Dan Collins

2 major spills Mar 13 '78, Feb 7 '79 broken delivery
lines of #2 fuel oil. Sent to Sewage lift station.
Mostly contained there but some in 79 went to 1st treatment
area. No other spills since then. Oil was coming in till
11/81 but this has trickled off to nothing. They even stopped
monitoring that station for oil. RR installed an oil-water
separator in catch basin. For the most part this has worked
to stop oils.

Prepared by: Janice

MODIFIED LEGRAND ASSESSMENT

COUNTY										OWNER CAT.										SITE CLASS.										SITE NUMBER										SITE LOCATION										STEP 10																																																	
SA										CLAIR										IND										720										SUN										-11-15										20																																							
NAME: A) OWNER B) OPERATOR C) COMPLAINTANT D) APPLICANT E) NONE																																																																																																			
A) OPERATOR																																																																																																			
MAILING ADDRESS																																																																																																			
C. G. S. R.																																																																																																			
CITY																				STATE										ZIP CODE										AREA CODE										TELEPHONE NUMBER																																																	
DATE ASSESSED										SIC CODE										WASTE ID										SITE STATUS										HYDROGEO REPORT?																																																											
7-26-80										40110										2212										A										A A P																																																											
STEP 1										STEP 2										STEP 3										STEP 4										STEP 5										STEP 6										STEP 7										STEP 8										STEP 9										MISCELLANEOUS IDENTIFIERS									
061										5A1										7										2										12										501										3										08										5																			
1) Has the groundwater or surface water quality in the site area been adversely affected? 1) YES 2) NO 3) UNKNOWN Explain: 3																														2) Have drinking water wells in the site area been adversely affected? If so, what type? 1) YES 2) NO 3) UNKNOWN Explain: 3																														REPRESENTATIVE WELL RECORD Location: A) wells/ sq. ft. @ ft. B) wells/ sq. ft. @ ft. C) wells/ sq. ft. @ ft. D) wells/ sq. ft. @ ft.																																							

COMMENTS

Site investigation on 1/9/79 and 1/10/79. No groundwater was detected. The site is located on a hillside and the groundwater is believed to be at a depth of 10 to 15 feet. The site is not a potential source of contamination.

Step 1 - All data collected.

Step 2 - Sample for groundwater.

Step 3 - Sample for groundwater.

Step 4 - Sample for groundwater.

Step 5 - Sample for groundwater.

Step 6 - Sample for groundwater.

Step 7 - Sample for groundwater.

Step 8 - Sample for groundwater.

Step 9 - Sample for groundwater.

Step 10 - Sample for groundwater.

SPUD

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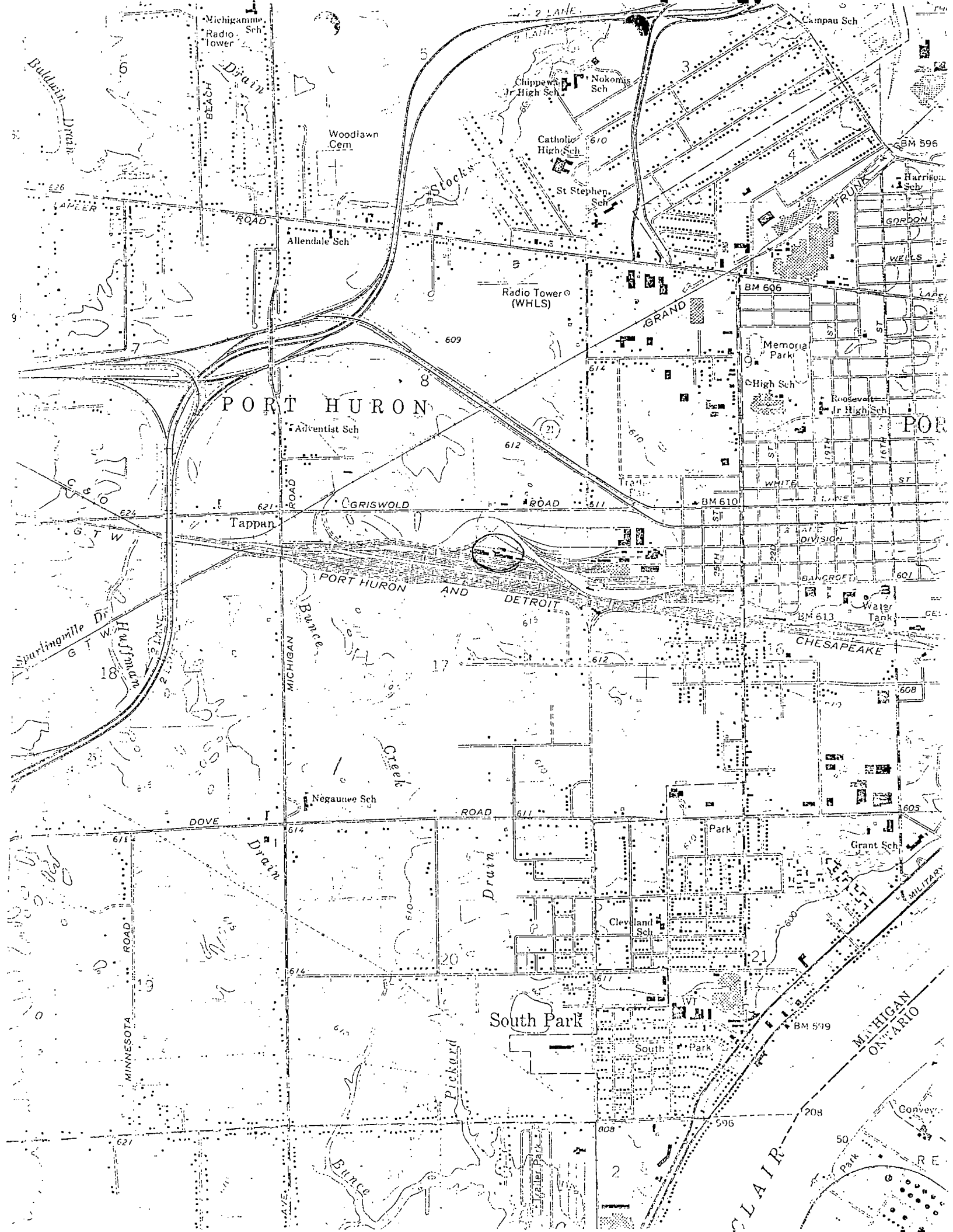
12/28/79

12/29/79

12/30/79

12/31/79

C.P.



GT
Grand Trunk Western Railroad Co

131 West Lafayette Boulevard
Detroit, Michigan 48226

February 27, 1979
File: X 12-5 Pt. Huron

Mr. Roy E. Schrameck, District Engineer
Water Quality Division
Department of Natural Resources
Route #2
Rockwood, Michigan 48173

Attention: Mr. William E. Stone

Re: Project No. 230/0327, Port Huron Pollution

Dear Mr. Schrameck:

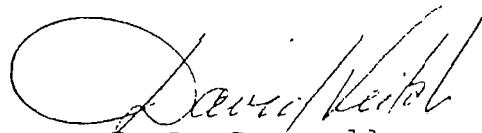
Reference your letter of October 16, 1979 outlining conditions to be investigated which required the services of outside consultants.

Wade, Trim & Associates have completed their Phase I investigation to determine the optimum method of proceeding to obtain the required data. Copy attached.

We have now entered into a Phase II Agreement with Wade, Trim & Associates to develop the final report along the line of their February 16, 1979 letter (copy attached). It will be noted that they expect ground conditions for investigation to have improved sufficiently by late March to permit boring, etc.

Trusting this letter meets your immediate requirements as to our progress.

Very truly yours,


R. P. Cornwell
Chief Engineer

Attachments

RECEIVED

MAR 01 1979

PTE. MOUILLEE S.G.A.

BUREAU OF WATER MANAGEMENT
AND
WATER RESOURCES COMMISSION
Memorandum

To: Files
From: Cathy Morse
Date: June 25, 1979
Subject: Grand Trunk Railroad
Det. Eng. Office
Groundwater Study at
Port Huron Terminal

Spoke to one of the ^{are}engineers, not Mr. Veitch, and was advised that Wade, Trim & Associates were or/nearly completed with the groundwater study at the Port Huron Terminal as of this date.

cc: Cathy Morse

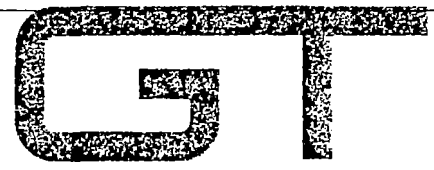
BUREAU OF WATER MANAGEMENT
AND
WATER RESOURCES COMMISSION
Memorandum

To: Files
From: Cathy Morse
Date: June 25, 1979
Subject: ✓ City of Port Huron, Dan Collins
✓Grand Trunk Railroad
Groundwater Study

Informed Mr. Fred Kemp, of the same office, that the groundwater study is or is nearly completed at G.T.R.R., Port Huron Terminal. I advised Mr. Kemp that I will speak with Mr. Collins again, after learning more on the subject, at a later date, from Mr. Veitch.

cc: C. Morse

*Chuck
Cathy Glass
Jerry - condition
easy to find
Jensen and
Hansen per summary
Frank
124*



Grand Trunk Western Railroad Co

131 West Lafayette Boulevard
Detroit, Michigan 48226

August 28, 1979

File: X 12-5 Pt. Huron

QW

Ms. Kathy Morse
Water Quality Division
Department of Natural Resources
Route #2
Rockwood, MI 48173

Re: Project No. 230/0327, Port Huron
Pollution, Phase II Groundwater
Contamination Study - Port Huron
Diesel Fueling Facility

Dear Ms. Morse:

Attached for your use and records are two copies of Wade, Trim & Associates' final report on subject project. Conclusions contained on Pages 5 & 6 are closely aligned to the items listed in my letter of July 17, 1979.

Trusting the above is sufficient for your needs, I will await hearing from you.

Very truly yours,

David Veitch

D. Veitch
Bridge & Structure Engineer

Attachment

RECEIVED

AUG 30 1979

PTE. MOUILLE S.G.A.

Glade, Trim & Associates, Inc.

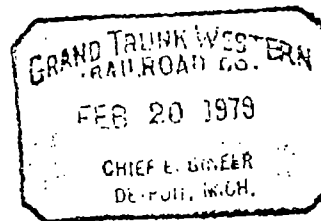
Civil Engineers • Land Surveyors • Community Planners

February 16, 1979

Grand Trunk Western Railroad Company
131 West Lafayette Boulevard, Room 903
Detroit, Michigan 48226

Attention: Mr. D. Veitch

Re: Proposal to Perform a Phase II
Groundwater Contamination Study
Port Huron, Michigan, Diesel Fueling Facility



Dear Mr. Veitch:

In accordance with our January 22, 1979 letter, we are pleased to submit our proposal for the Phase II Study at the Port Huron facility as outlined in our January, 1979, Phase I Groundwater Contamination Study Report to you.

The proposal includes the following items of work:

1. Installation of a network of piezometers at the site.
2. Obtaining soil borings for soil character, classification, and quality analyses as part of the installation of the piezometers.
3. Field survey and monitoring the piezometer installations to obtain the necessary field data to determine:
 - a. Existence and extent of any contaminated groundwater zone.
 - b. The direction of groundwater movement.
 - c. The approximate rate of movement.
 - d. The location or locations where discharges of oil occur to surface waters or into sewers.
 - e. Quantity of oil in the groundwater plume, if present.
 - f. The nature of the contamination.

February 16, 1979

4. An assessment of possible environmental and public health concerns based on the analysis of the field data.
5. Recommendations for containment of any groundwater contamination or protection of uncontaminated groundwater.

We propose to complete the Phase II Study and prepare a report for a fee not to exceed \$15,800 as outlined in the Phase I report, and we will bill on a time and material basis up to the fixed fee amount. If, however, during the course of the investigation because of any unknown or extenuating discoveries, circumstances, etc., which we feel will alter the course of the field investigation and possibly affect the project cost, we will advise you as soon as possible.

It is anticipated that the Phase II Study can begin in late March, 1979, or as soon as weather permits and the report will be completed within three months from the commencement of the field work.

Thank you for the opportunity to submit this proposal. If our proposal is acceptable, please sign both copies of the attached Contract Agreement and return the blue copy for our file.

Very truly yours,

WADE, TRIM & ASSOCIATES, INC.

M. L. Alexander
M. L. Alexander

MLA:we
ZZZ 1000-79
Enclosure

Wastewater Treatment Plant
100 Merchant Street
January 16, 1979

Mr. William E. Stone
Water Quality Division, DNR
Pte. Mowillee State Game Area
Rt. #2, Rockwood, Mi. 48173

Dear Bill,

I am inquiring into the status of your progress with Grand Trunk Railroad in regard to their groundwater study which was required by Roy E. Schrameck through a letter written by yourself on October 16, 1978. The letter stated that the groundwater study should be completed by December 30, 1978.

We are interested in this study because we are experiencing a constant inflow of oil into one of our sewer pumping stations. We feel that the source of this oil is from the Grand Trunk Railroad yard through infiltration of the sewer system. We have been experiencing this condition since March of 1978 when the oil spill at Grand Trunk occurred. This spill was mentioned in your letter.

For this reason we are interested in the groundwater study. We would like to know to what extent the oil has saturated the soil and an estimate of the volume of oil in the soil. This may give an indication as to the duration of infiltration we may expect to have.

Yours truly,

Daniel L. Collins

Daniel L. Collins
Pollution Control Inspector

xc:
L. Goss
F. Kemp

DLC:mah

JAN 17 1979

PJE MOBILE

NATURAL RESOURCES COMMISSION

EARL T. JOHNSON
 SAMUEL A. KATA
 DEAN R. RICHMOND
 LARRY L. SNELL
 HARRY L. WHITELEY
 DANIEL WOLFE
 CHARLES G. YOUNGLOVE



WILLIAM G. MILLIKEN, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING LANSING, MICHIGAN 48926
 EDWARD A. TANNER, Director

1101 Michigan State Game Area
 Rt. 41, Rockwood, MI 48170

WATER RESOURCES COMMISSION

WILLIAM G. MILLIKEN
 MATTHEW J. COLE
 CHARLES D. HARRIS
 CLAYTON E. LAY
 STANLEY QUACKENBUSH
 JOHN E. VOSE
 HELEN J. WOOD

October 16, 1978

CERTIFIED MAIL

J. H. Burdakin, President
 Grand Trunk Railroad
 Room 800
 131 W. Lafayette
 Detroit, Michigan

Dear Mr. Burdakin:

On September 20, 1978, members of my staff inspected the Grand Trunk Railroad (G.T.R.R.) switching yard at 32nd and Bancroft in Port Huron. The inspection was made in response to a pollution complaint filed with this office by an employee of the yard. The complainant alleged that storm runoff from the yard, carrying oil and various chemicals, was reaching the St. Clair River via storm sewers and natural drains. Investigation revealed that both storm sewers that serve the yard are connected to the City of Port Huron Wastewater Treatment Plant. Any runoff should receive adequate treatment at the plant therefore posing no threat to the river.

Although the runoff seems to present no problems, other areas of concern were realized from the investigation. Michigan Law, Part 5 Rules of General Rules of the Water Resources Commission promulgated under Act 245 of Public Acts of 1979 as amended, requires facilities having oil storage in excess of 40,000 gallon to develop a Pollution Incident Prevention Plan (PIPP). The switch yard, having a storage of at least 100,000 gallon of fuel oil, is subject to the law. Basically, the PIPP details the materials stored, the storage locations, volumes stored, and types of containment, such as diking. It also is a working plan outlining containment, notification and clean-up procedures in the event of a spill. The switch yard's PIPP would include emergency action to be taken in the event a tank car carrying toxic or hazardous materials exploded or ruptured within the yard.

Enclosed is a copy of Act 245, Part 5 Rules, a PIPP worksheet, and a critical materials list to aid in the preparation of the plan. The PIPP for the Port Huron switch yard must be submitted to Robert Courchaine, Chief Engineer, Water Quality Division, Department of Natural Resources, P. O. box 30026, Lansing, MI 48909, by December 15, 1978 for approval. Please note that Part



Rules requires companies to immediately notify this agency of any spill whether to surface or groundwaters, or to sanitary or storm sewers. It also requires a written explanation of the loss within 15 days of its occurrence. It may be helpful to contact the United States Environmental Protection Agency, Grosse Ile office (313-678-0000) to determine federal spill prevention plan requirements. It is possible both agency's requirements could be satisfied in one plan.

Another concern is possible ground contamination at the yard area. My staff, during their investigation, noticed that the surface soil in the yard, especially around the refueling area and the switches, is saturated with oil. They consulted with City of Port Huron officials and were told that the yard had had several oil losses. The most recent loss, this spring, being a diesel fuel spill of well over 600 gallons. It is my staff's opinion, considering the sandy soil conditions in the area, that much of the oil has reached the groundwater. Their opinion is supported by their observation of oil contaminated groundwater infiltrating the storm sewer that runs north of the refueling area. In this light, I am requesting Grand Trunk Railroad to do a spill study in the yard. The study should determine direction of flow, depth of the water table, the ariel extent of contamination, the degree of contamination and the types of oil involved. A study plan should be submitted to this office by November 30, 1978, and I would expect the actual study to be completed by December 30, 1978.

During their investigation, my staff noted two problems which are not within the jurisdiction of this department but were of such concern I feel they should be brought to your attention. First, there were several piles of rotten grain along the tracks. These piles were producing a horrible stench and were attracting insects. The complainant said that the yard workers often had to wade through the piles, a very unpleasant task. Removal of the grain would be in the best interests of both the railroad and its employees.

A potentially more hazardous situation is the condition of some of the tracks. The rails on at least two of the tracks had sunk into balast to a point where the top of the rail was level with the balast. The tracks in general seemed to be in poor condition and lacking in maintenance. My staff saw several tankers of vinyl chloride and propane gas in the yard. If these or any of the other numerous tankers carrying hazardous and toxic materials were to derail in the yard and rupture, human lives could be endangered or lost. Due to the seriousness of the situation, Grand Trunk Railroad should investigate the need for additional track maintenance at the Port Huron yard.

I would appreciate your prompt and personal attention to the matters discussed, and look forward to working with your staff in solving these problems. If you have any questions, feel free to contact me at (313) 379-5592.

Yours truly,

WATER QUALITY DIVISION

Roy E. Schrameck
Roy E. Schrameck

District Engineer

William E. Stone
By: William E. Stone

Water Quality Division

RES:WES/jmg

cc: W. Bonunsky Fred Kemp ✓
Representative William Jowett ✓
William Turney.
John Brennan ✓

		elevation	TOT well depth	Screen	Static Water	
T6N-R17E-19	#1	619'	128'	115'	47'	Sand - 2' Clay - 110 Sand - 128
T6N-R-17E-7	#2	624'	109'	-	57'	Sand - 8' Clay - 100' Sand - 109
T6N-17E-7	#3	620'	115'	107'	57'	Sand - 5' Clay - 100' Sand - 115'
T6N-R-17E 7	#4	625'	121'	121'	52	Sand - 4' Clay - 110 Sand 117-121
T6N-R17E-7	#5	625'	113'	110'	66'	Sand 8' Clay 75' Sand 113'
T6N-R17E-7	#6	625'	161'	161'	75'	Clay-Pan - 146' Shovel 161'
T6N-R17E-18	#7	627'	115'	115'	40'	Sand - 11' Clay - 98' Sand - 115
T6N-R17E-18	#8	620'	123'	123'	40'	Clay 118 Sand 123

Ref 1

100M (Rev. 12-68)

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

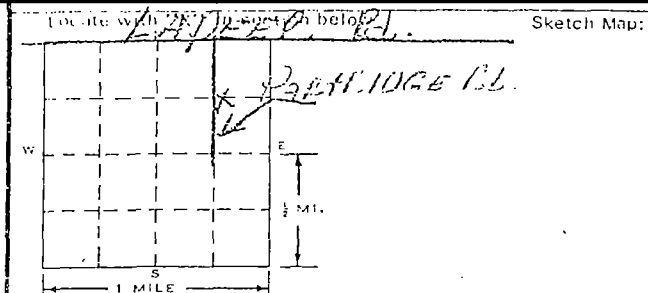
1 LOCATION OF WELL

County St. Clair Township Name Port Huron Fraction SW 1/4 NE 1/4 Section Number 7 Town Number 6 N 7 E Range Number 17

Distance And Direction from Road Intersections

Non-Responsive

Non-Responsive



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

SAND	8'	8'
CLAY	92'	100'
GAS & GRAVEL	4'	104'
GRAVEL & CLAY	5'	109'

4 WELL DEPTH: (completed) Date of Completion

107 ft. 12-14-71

5 ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug
☒ Hollow rod ☐ Jetted ☐ Bored ☐

6 USE ☒ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐

7 CASING: Threaded ☒ Welded ☐ Height: Above/Below
 Diam. _____ ft.

4 in. to _____ ft. Depth Weight _____ lbs./ft.
 _____ in. to _____ ft. Depth Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: 3/4" J-Box Dia.: 3"Slot/Groove 24 Length 4'Set between 105 ft. and 107 ft.Fittings: RUBBER PACKER

9 STATIC WATER LEVEL

57 ft. below land surface

10 PUMPING LEVEL below land surface

58 ft. after 2 hrs. pumping 15 g.p.m.

_____ ft. after _____ hrs. pumping _____ g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) _____ Chlorides (Cl) _____

Hardness _____ Other _____

12 WELL HEAD COMPLETION:

☐ In Approved Pit
☒ Pitless Adapter ☐ 12" Above Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐

Depth: From _____ ft. to _____ ft.

14 Nearest Source of possible contamination

50 feet E Direction SEPTIC TypeWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name GouldModel Number WEH05411 HP 1/2 Volts 115

Length of Drop Pipe _____ ft. capacity _____ G.P.M.

Type: ☒ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

INFO. BY DRILLER, ITEM NO.

CORRECTED BY:

ADDITION BY:

elev 5624'

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

5640 Gratiot Rd.

REGISTERED BUSINESS NAME St. Clair, Mich.

Address

Signed

AUTHORIZED REPRESENTATIVE

REGISTRATION NO. 1257Date 12-14-71

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County: St. Clair Twp: Port Huron Fraction: SW 1/4 NE 1/4 NW 1/4 Section No.: 7 Town: 6N N/S. Range: 17E E/W.

Distance And Direction from Road Intersections

Non-Responsive

3 OWNER OF WELL

Non-Responsive

2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM4 WELL DEPTH: (completed) 115 ft. Date of Completion Jan. 3 19675 ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug
☐ Hollow rod ☐ Jetted ☐ Bored ☐6 USE: ☒ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐7 CASING: Threaded ☒ Welded ☐ Height: Above/Below
Diam. 4 in. to 107 ft. Depth surface 7 ft.
Weight 11 lbs./ft.
in. to ft. Depth Drive Shoe? Yes ☒ No ☐8 SCREEN:
Type: Plastic Dia.: 2 1/2
Slot/Gauze 13 Length 8 ft
Set between 108 ft. and 115 ft.
Fittings: 3" coupling on top9 STATIC WATER LEVEL
57 ft. below land surface10 PUMPING LEVEL below land surface
60 ft. after 1 hrs. pumping 11 g.p.m.
ft. after hrs. pumping g.p.m.11 WATER QUALITY in Parts Per Million:
Iron (Fe) Chlorides (Cl)
Hardness12 WELL HEAD COMPLETION: ☐ In Approved Pit
☐ Pitless Adapter ☒ 12" Above Grade13 GROUTING:
Well Grouted? ☐ Yes ☒ No
Material: ☐ Neat Cement ☐
Depth: From ft. to ft.14 SANITARY:
Nearest Source of possible contamination None
feet Direction Type
Well disinfected upon completion ☒ Yes ☐ No15 PUMP: Pump to be installed by
Manufacturer's Name Johnson
Model Number
Length of Drop Pipe ft. capacity G.P.M.
Type: ☐ Submersible ☐
☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO. BY DRILLER, IF ANY

CORRECTED BY:

ADDITION BY: RR 2/21/67

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true
to the best of my knowledge and belief.Welder Well Drilling 257
REGISTERED BUSINESS NAME REGISTRATION NO.Address 5640 Leontine Rd. St. ClairSigned A. J. Walker Date Jan 4 1967
AUTHORIZED REPRESENTATIVE

JUN 12 1973

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

(4)

1 LOCATION OF WELL

County

St. Clair

Township Name

Port Huron

Fraction

NW 1/4 NW 1/4 Sec 7

Section Number

7

Town Number

6 N.E.

Range Number

17 E.W.

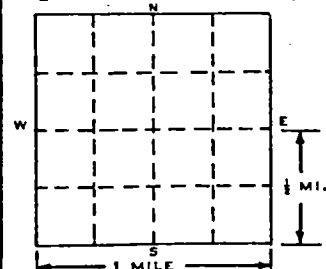
Distance And Direction from Road Intersections

Non-Responsive

Street Address & City of Well Location

Locate with "X" in section below

Sketch Map:



3 OWNER OF WELL:

Non-Responsive

4 WELL DEPTH: (completed) Date of Completion

121 ft. Feb. 1973

5 ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug☐ Hollow rod ☐ Jetted ☐ Bored ☐6 USE: ☒ Domestic ☐ Public Supply ☐ Industry☐ Irrigation ☐ Air Conditioning ☐ Commercial☐ Test Well ☐7 CASING: Threaded ☒ Welded ☐ Height: Above/Below

Diam. Surface 1 ft.

4 in. to ft. Depth Weight 11 lbs./ft.

in. to ft. Depth Drive Shoe? Yes ☐ No ☐

8 SCREEN:

Type: Stainless Steel: 4"

Slot/Screen 6 & 6 Length 8'

Set between 113 ft. and 121 ft.

Fittings:

Screwed

9 STATIC WATER LEVEL

52 ft. below land surface

10 PUMPING LEVEL below land surface

110 ft. after 8 hrs. pumping 2 g.p.m.

ft. after hrs. pumping g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) Chlorides (Cl)

Hardness Other

12 WELL HEAD COMPLETION: ☐ In Approved Pit☒ Pitless Adapter ☒ 12" Above Grade13 Well Grouted? ☐ Yes ☒ No☐ Neat Cement ☐ Bentonite ☐

Depth: From ft. to ft.

14 Nearest Source of possible contamination

65 feet W Direction Septic Type

Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☒ Not installed

Manufacturer's Name

Model Number HP Volts

Length of Drop Pipe ft. capacity G.P.M.

Type: ☐ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

USED INFO. BY DRILLER FROM

CORRECTED BY

REVISION BY

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Mudge Well Drilling, Inc. 0344

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address 8594 Morris Rd. Goodells, Mich.

Signed

AUTHORIZED REPRESENTATIVE

Date 6-6-73

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

#5

FEB 28 1999

1 LOCATION OF WELL

County

ST. CLAIR

Township Name

PORT HURON

Fraction

 $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$

Section Number

197

Town Number

6 N.W.

Range Number

17 E.X.

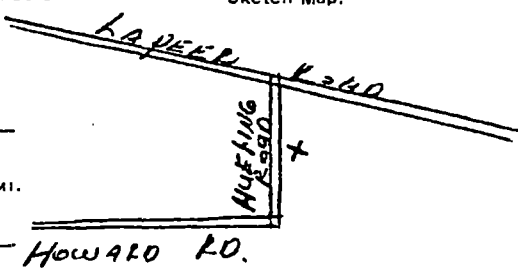
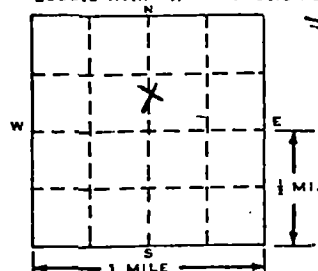
Distance And Direction from Road Intersections

3 OWNER OF WELL:

Non-Responsive

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

SAND

8' 8'

CLAY

67' 75'

FINE SAND

31' 106'

COARSE SAND

7' 113'

4 WELL DEPTH: (completed) Date of Completion

113 ft. Oct 6-79

5 ☒ Cable tool ☒ Rotary ☐ Driven ☐ Dug
☐ Hollow rod ☐ Jetted ☐ Bored ☐6 USE: ☒ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐7 CASING: Threaded ☒ Welded ☐
Diam. 4 in. to 110 ft. Depth
in. to ft. Depth
Height: Above/Below
Surface 1 ft.
Weight 11 lbs./ft.
Drive Shoe? Yes ☒ No ☐8 SCREEN:
Type: STAINLESS Dia.: 3"
Slot/Gauze 12 Length 4'
Set between 109 ft. and 113 ft.
Fittings: 3" K-PACKED9 STATIC WATER LEVEL
66 ft. below land surface10 PUMPING LEVEL below land surface
70 ft. after 2 hrs. pumping 10 g.p.m.
ft. after hrs. pumping g.p.m.11 WATER QUALITY in Parts Per Million:
Iron (Fe) Chlorides (Cl)
Hardness Other12 WELL HEAD COMPLETION: ☐ In Approved Pit
☐ Pitless Adapter ☒ 12" Above Grade13 Well Grouted? ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☒ CLAY
Depth: From 40 ft. to TOP ft.14 Nearest Source of possible contamination
feet Direction NONE Type
Well disinfected upon completion ☒ Yes ☐ No15 PUMP: ☒ Not installed
Manufacturer's Name
Model Number HP Volts
Length of Drop Pipe ft. capacity G.P.M.
Type: ☐ Submersible
☐ Jet ☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true
to the best of my knowledge and belief.

REGISTERED BUSINESS NAME

Weiser Well Drilling

REGISTRATION NO.

Address 5500 Grand Rd.

St. Clair, Mich.

Signed C. J. Weiser

AUTHORIZED REPRESENTATIVE

Date Oct 9-79

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

T
#7

1 LOCATION OF WELL		ACT 254 PA 1505		PUBLIC HEALTH		#
County	Township Name	Fraction	Section Number	Town Number	Range Number	
St. Clair	Port Huron	$\frac{1}{4}$ -- $\frac{1}{4}$ $\frac{1}{4}$	18	6 N/2	17 E/4	
Distance And Direction from Road Intersections			3 OWNER OF WELL:			

Non-Responsive

[illegible]

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.
*CORRECTED BY
**ADDITION BY
ELEVATION
DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

REGISTERED BUSINESS NAME Perkins & Co 672 REGISTRATION NO.

Address

Signed

AUTHORIZED REPRESENTATIVE

Date 6-5-81

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County St Clair Twp. Port Huron Fraction SE 1/4 SE 1/4 Section 18 Town 6 N. 7. 8 Range 17
 Distance And Direction from Road Intersections 26 OWNER OF WELL 3 OWNER OF WELL 8

Non-Responsive

2	FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	4 WELL DEPTH: (completed)	Date of Completion
	<u>Clay</u>	<u>118</u>	<u>118</u>	5 <u>123'</u> ft.	<u>May 26-67</u>
	<u>fine gravel</u>	<u>5</u>	<u>123</u>	<input checked="" type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input checked="" type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow rod <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/>	
				6 USE: <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Public Supply <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input type="checkbox"/>	
				7 CASING: Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Height: Above/Below Diam. <u>4</u> in. to <u>123</u> ft. Depth surface <u>1</u> ft. Weight <u>11</u> lbs./ft. Drive Shoe? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
				8 SCREEN: Type: <u>w.w. brass</u> Dia.: <u>3" I.D.</u> Slot/Gauze <u>18</u> Length <u>4'</u> Set between <u>119</u> ft. and <u>123</u> ft. Fittings: <u>3" cplg & 2" x 18" nipple</u>	
				9 STATIC WATER LEVEL <u>40</u> ft. below land surface	
				10 PUMPING LEVEL below land surface <u>50</u> ft. after <u>2</u> hrs. pumping <u>10</u> g.p.m. <u> </u> ft. after <u> </u> hrs. pumping <u> </u> g.p.m.	
				11 WATER QUALITY in Parts Per Million: Iron (Fe) <u> </u> Chlorides (Cl) <u> </u> Hardness <u> </u>	
				12 WELL HEAD COMPLETION: <input type="checkbox"/> In Approved Pit <input checked="" type="checkbox"/> Pitless Adapter <input checked="" type="checkbox"/> 12" Above Grade	
				13 GROUTING: Well Grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Material: <input type="checkbox"/> Neat Cement <input type="checkbox"/> <u> </u> Depth: From <u> </u> ft. to <u> </u> ft.	
				14 SANITARY: Nearest Source of possible contamination <u>50</u> feet Direction <u> </u> Type <u> </u> Well disinfected upon completion <input type="checkbox"/> Yes <input type="checkbox"/> No	
				15 PUMP: Manufacturer's Name <u>Myers</u> Model Number <u>SF521</u> HP <u>1/2</u> Length of Drop Pipe <u>91</u> ft. capacity <u>10</u> G.P.M. Type: <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> <u> </u> <input type="checkbox"/> Jet <input type="checkbox"/> Reciprocating	

16 Remarks, elevation, source of data, etc.
 ADDED INFO. BY DRILLER WLA

*CORRECTED BY: PTB**ADDITION BY:

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Reuba & Reuba
 REGISTERED BUSINESS NAME

0351
 REGISTRATION NO.

Address 7686 Quip Rd Richmond

Signed George Reuba Date 5-26-67
 AUTHORIZED REPRESENTATIVE

RECEIVED

MAR 05 1979

PTE MOUILLEE S.G.A.

February 10, 1979

Michigan Water Resources Commission
Water Quality Division
P. O. Box 33028
Lansing, Michigan 48909

Attn: John M. Bohansky, Regional Engineer

Dear Mr. Bohansky:

In accordance with provisions of Part II, paragraph B, 8, of our NPDES Permit # MI 0023833 under which we are presently operating, this is to advise you of conditions leading to our collection system and this treatment plant receiving a large amount of #2 Diesel Fuel.

A broken delivery line from a 100,000 gallon storage tank located on the property of Grand Trunk Western Railroad ruptured, and the lost oil entered a catch basin only a few feet from the break and was carried through our remote lift station to our plant. We discovered this problem about 8:00 P.M. of February 7th, and had it traced to the railyards by midnight. Unfortunately, the railroad personnel were unable to locate the area of the leak, and initially denied being the source. The broken line was finally identified as the source about 5:30 A.M. of the 8th. Contact was made with Rick Lumpgren of DNR and officials of Grand Trunk, and arrangements to remove the oil, oily sewage and a significant amount of oily scum resulting from a combination of the diesel fuel with trace amounts of latex paper coating (reference mine of February 3, 1979 to yourself) were made.

A licensed industrial hauler from Coruna Ontario, Canada was contacted. He removed approximately 1,400 U.S. gallons of #2 diesel fuel from our lift station and 11,500 gallons of oil and oily waste from our plant for disposal. This was accomplished by 3:00 P.M. of February 9th. The oil was carefully contained in our lift station and primary process, and has not had a noticeable effect as yet on our secondary process. To the best of our knowledge, no oil was discharged to the St. Clair River. Grand Trunk has accepted responsibility for costs incurred by us, and has repaired the leak.

Very truly yours,

Fred J. Kemp

cc:

REF ID
A+B WASTE DISPOSAL
ME050597075

TDD # 85-8303-03C

Page 1 of

SITE A+B WASTE DISPOSAL

CONTACT LEONARD GOSS PHONE (313) 987-6000

SUPERINTENDENT

PORT HURON CITY WATER DEPT.

SUBJECT: PORT HURON MUNICIPAL WATER SYSTEM

MR. GOSS STATED THAT THE CITY HAS (a)

SURFACE INTAKES FROM THE ST. CLAIR RIVER AND NO

MUNICIPAL WELLS, THE INTAKES ARE CLOSE TOGETHER,

APPROXIMATELY 1/2 MILE SOUTH OF BOTTOM END OF

LAKE HURON. THEY EXTEND 150' INTO THE RIVER.

THE LOCATION OF THE INTAKES IS 1300 PINEGROVE AVE

IN PINEGROVE PARK. THE WATER SUPPLIES

APPROX. 50,000 PEOPLE.

Plat 3

Date: 1/9/85

John H. Johnson